IN THE CLAIMS:

Claims 1, 18, 22, 26, 28, 29 and 35 have been amended herein. All of the pending claims 1 through 38 are presented below. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

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1. (amended) An electrotransport device for transporting molecules of a beneficial agent from a reservoir across a semipermeable membrane and into an ionic fluid, said electrotransport device comprising:

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a first compartment including a first electroactive material configured as a first electrode, said first compartment adapted for containing a beneficial agent therein;

a first semipermeable membrane disposed adjacently under at least a portion of said first compartment and in fluid communication with the beneficial agent contained therein, said semipermeable membrane configured to be in fluid communication with an ionic fluid in an environment in which said electrotransport device is placed;

a second electrode comprising a second electroactive material in communication with the ionic fluid; and

a conductor, insulated from the ionic fluid, said conductor extending from said first electrode to said second electrode and providing an electrical interconnection therebetween;

wherein said first electroactive material is electropositive or electronegative and wherein said second electroactive materials is electronegative or electropositive, respectively, such that when electrically connected with said conductor and said ionic fluid, a battery is formed ~~forming a battery~~.

2. (original) The electrotransport device of claim 1, wherein said first semipermeable membrane is configured to allow flow of molecules from said first compartment to the ionic fluid responsive to an electric current delivered thereupon.

3. (original) The electrotransport device of claim 1, wherein said first semipermeable membrane is configured to substantially inhibit transport of the molecules therethrough in the absence of an electric current delivered to one of the molecules and said semipermeable membrane.

4. (original) The electrotransport device of claim 1, further comprising a second semipermeable membrane disposed adjacently under said second electrode.

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5. (original) The electrotransport device of claim 1, wherein said first semipermeable membrane is configured to conduct charged species from said first electrode when implanted under a subject's skin surface in whom the electrotransport device has been implanted.

6. (original) The electrotransport device of claim 1, wherein said at least one semipermeable membrane is configured to be substantially microporous throughout, and adapted to substantially prevent blood intrusion into said first semipermeable membrane.

7. (original) The electrotransport device of claim 1, wherein said first semipermeable membrane is configured to selectively allow the flow of ionized molecules therethrough.

8. (original) The electrotransport device of claim 1, wherein said first electrode comprises said first electroactive material is configured as one of a solid, a suspension, a gel, and a solution.

9. (original) The electrotransport device of claim 1, wherein said second electroactive material is configured as one of a solid, a suspension, a gel, and a solution.

10. (original) The electrotransport device of claim 1, wherein said first electrode and said beneficial agent are substantially interspersed throughout at least a portion of said first compartment.

11. (original) The electrotransport device of claim 1, further comprising a power source in electrical communication with said first electrode.

12. (original) The electrotransport device of claim 11, further comprising a control circuit interposed in said electrical connection between said power source and said first electrode.

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13. (original) The electrotransport device of claim 1, further comprising a second semipermeable membrane disposed adjacently under at least a portion of said second compartment, said second semipermeable membrane configured to be in fluid communication with a second beneficial agent contained in said second compartment, said second semipermeable membrane adapted to be implanted under at least a portion of a subject's stratum corneum in whom the electrotransport device has been implanted.

14. (original) The electrotransport device of claim 1, wherein said first compartment has portions formed of a refractory transition metal configured as an electrode housing, said portions coated with a biocompatible material.

15. (original) The electrotransport device of claim 14, wherein said electrode housing is formed of the same refractory transition metal as the first electrode.

16. (original) The electrotransport device of claim 14, wherein said portions are formed of a metal selected from the group consisting of titanium and tantalum.

17. (original) The electrotransport device of claim 1, wherein at least a portion of said first semipermeable membrane comprises a material configured to be resorbable by a subject's body tissues in whom the electrotransport device has been implanted.

18. (amended) An electrotransport device for delivering molecules of a beneficial agent to tissue of a subject upon implantation, said electrotransport device comprising:

a plurality of mutually spaced apart electrodes, each of said plurality of mutually spaced apart electrodes adapted to be placed over a subject's tissue surface;

at least one conductor extending between two of said plurality of mutually spaced apart electrodes;

at least one reservoir disposed under an electrically conducting area of a first electrode of said plurality of mutually spaced apart electrodes, said at least one reservoir adapted to accommodate the molecules of beneficial agent; and

a semipermeable membrane disposed adjacently under said at least one reservoir, said semipermeable membrane adapted to be implanted under at least a portion of the tissue of a subject,

wherein a subject's tissue completes a circuit between said plurality of mutually spaced apart electrodes upon implantation under the subject's skin surface and enables delivery of molecules of the beneficial agent to the subject.

19. (original) The electrotransport device of claim 18, wherein said semipermeable membrane is configured to allow the flow of the molecules therethrough responsive to delivery of an electric current thereupon.

20. (original) The electrotransport device of claim 18, wherein said semipermeable membrane is configured to substantially inhibit transport of the molecules in the absence of an electric current delivered to one of the molecules and said semipermeable membrane.

21. (original) The electrotransport device of claim 18, wherein said semipermeable membrane is configured to substantially inhibit transport of the molecules in the absence of an electric current.

22. (canceled).

23. (original) The electrotransport device of claim 18, wherein said semipermeable membrane is configured to selectively allow the flow of ionized molecules therethrough.

24. (original) The electrotransport device of claim 18, wherein at least part of said semipermeable membrane comprises a material configured to be resorbable by the subject's body tissues.

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25. (original) The electrotransport device of claim 18, further comprising a second semipermeable membrane disposed in current conducting relationship under a second electrode of said plurality of mutually spaced apart electrodes, said second semipermeable membrane adapted to be implanted under at least a portion of the subject's stratum corneum.

26. (amended) The electrotransport device of claim 18, further comprising a power source in electrical communication with said ~~first electrode~~ plurality of mutually spaced apart electrodes.

27. (original) A method of electrically facilitating the transport of a beneficial agent to a body tissue of a subject, said method comprising:

providing a plurality of electrodes configured to conduct electrical current in relation to said body tissue;

providing at least one beneficial agent reservoir disposed adjacently to an electrically conductive area of at least one of said plurality of electrodes;

including a beneficial agent in said beneficial agent reservoir;

providing at least one semipermeable membrane in fluid communication with said at least one beneficial agent reservoir, said at least one semipermeable membrane configured to substantially inhibit passive diffusion of a beneficial agent therethough in the absence of an electrical current applied to said at least one semipermeable membrane and said beneficial agent;

implanting at least a portion of said at least one semipermeable membrane beneath a subject's stratum corneum skin layer, wherein, responsive to said implanting, a circuit is completed

between said plurality of electrodes, thus transmitting a voltage from said plurality of electrodes and said at least one semipermeable membrane to said body tissues, said voltage effecting transport of said beneficial agent through said at least one semipermeable membrane, said voltage facilitating transport of said beneficial agent through said body tissues; and

delivering said beneficial agent to the subject's body tissues.

28. (amended) The method according to claim ~~22~~ 27, wherein said providing at least one semipermeable membrane comprises providing at least one semipermeable membrane configured as one of a cationic exchange membrane and an ionic exchange membrane.

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29. (amended) The method according to claim ~~22~~ 27, wherein delivering said beneficial agent to the subject comprises diffusing said beneficial agent through micropores of said at least one semipermeable membrane.

30. (original) The method according to claim 27, wherein said at least one semipermeable membrane is configured to have a molecular cutoff adapted to substantially prevent blood intrusion into said at least one semipermeable membrane.

31. (original) The method according to claim 27, wherein delivering said beneficial agent to said subject comprises electrostatically repelling said beneficial agent through said at least one semipermeable membrane.

32. (original) The method according to claim 27, further comprising implanting said electrodes and said beneficial agent reservoir under a skin surface of said subject.

33. (original) The method according to claim 27, wherein a portion of said at least one semipermeable membrane remains exterior to the stratum corneum skin layer as a result of said implanting at least a portion of said at least one semipermeable membrane beneath a subject's

stratum corneum skin layer.

34. (original) The method according to claim 27, wherein said implanting at least a portion of said at least one semipermeable membrane beneath a stratum corneum skin layer comprises implanting a bottom-most surface of said at least one semipermeable membrane to a depth approximating about 20-100 μm below the stratum corneum skin layer.

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35. (amended) An intraocular delivery device for delivering a beneficial agent to a subject's eye using liquid present on the surface of the subject's conjunctiva to complete a circuit between two complementary electrodes configured within said intraocular drug delivery device, said intraocular drug delivery device comprising:

a membrane comprising a polymer, semipermeable to water, and further comprising first and second surfaces, said first surface being adapted to be placed on the subject's conjunctiva to interact with any liquid present thereon, said second surface configured to contain a beneficial agent for delivery to the subject;

a first electrode in fluid communication with said membrane and said beneficial agent, said first electrode comprising a first electroactive material; and

a second electrode comprising a second electroactive material, said second electrode configured to be in fluid communication with the subject's conjunctiva, but, except for conductive material connecting said first and second electrodes, electrically isolated from said first electrode, said first and second electroactive materials being selected, when configured together as a circuit, to form a battery;

wherein, when said intraocular drug delivery device is placed on the subject's conjunctiva, any electrically conductive liquid present thereon completes an ionic circuit between said first and second electrodes;

wherein said first electroactive material is electropositive or electronegative and wherein said second electroactive materials is electronegative or electropositive, respectively, such that when electrically connected with any electrically conductive liquid present on the subject's conjunctiva, a battery is formed that

~~forming said battery which~~ drives the beneficial agent through said membrane for delivery to the subject's conjunctiva upon completing an electronic circuit.

36. (original) The intraocular delivery device of claim 35 wherein the first electroactive material is magnesium.

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37. (original) The intraocular delivery device of claim 35 wherein the second electroactive material is carbon.

38. (canceled).